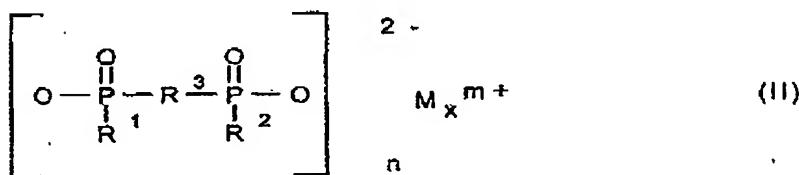
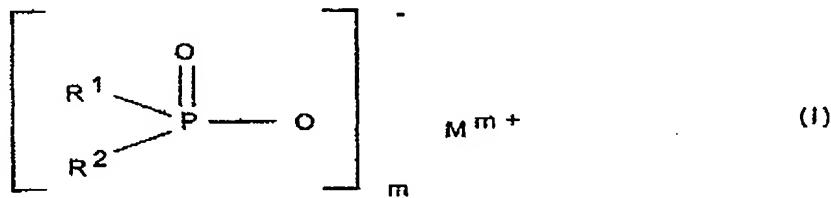


Attorney's Docket: 2002DE134  
 Serial No.: 10/669,973  
 Group: 1714

Amendments to the Claims

1. (Currently Amended) A flame-retardant thermoset composition comprising at least one thermosetting resin, a flame retardant from 0.1 to 30 parts by weight of the thermoset composition, wherein the flame retardant is selected from the group consisting of a phosphinic salt of the formula (I), a diphosphinic salt of the formula (II), a polymer of the phosphinic salt of the formula (I), a polymer of the diphosphinic salt of the formula (II) and mixtures thereof,



where

R<sup>1</sup>, R<sup>2</sup> are identical or different and are C<sub>1</sub>-C<sub>6</sub>-alkyl, linear or branched, or aryl; methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, n-pentyl, phenyl or mixtures thereof;

R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub>-alkylene, linear or branched, C<sub>6</sub>-C<sub>10</sub>-arylene, -alkylarylene or -arylalkylene;

BEST AVAILABLE COPY

Attorney's Docket: 2002DE134  
Serial No.: 10/669,973  
Group: 1714

M is Mg, Ca, Al, Sb, Sn, Ge, Ti, Zn, Fe, Zr, Ce, Bi, Sr, Mn, Li, Na, K or a protonated nitrogen base;  
m is from 1 to 4;  
n is from 1 to 4; and  
x is from 1 to 4,  
and at least one first synergistic component in an amount of from 0,1 to 100 parts by weight per 100 parts by weight of the thermoset composition, wherein the at least one synergistic compound is selected from the group consisting of organic and inorganic phosphorus compounds, and at least one second synergistic component in an amount from 0,1 to 100 parts by weight of the thermoset composition, wherein the at least one second synergistic component is a nitrogen compound, wherein the organic phosphorus compound is selected from the group consisting of triethyl phosphate, triaryl phosphates, tetraphenyl resorcinoldiphosphate, melamine phosphate, dimethyl methylphosphonate and polymers thereof with phosphorus pentoxide, phosphonate ester, (5-ethyl-2-methyl-dioxaphosphorinan-5-yl)methyl methyl methanephosphonate, phosphoric ester, pyrophosphoric ester, alkylphosphinic acids and oxalkylated derivatives thereof, and wherein the nitrogen compound is selected from the group consisting of melamine, melamine derivates of cyanuric acid, melamine derivatives of isocyanuric acid, melamine salts, melamine polyphosphate, melamine diphosphate, dicyandiamide, a guanidine compound, and condensation products of ethyleneurea and formaldehyde or ammonium polyphosphate.

2. (Cancelled)

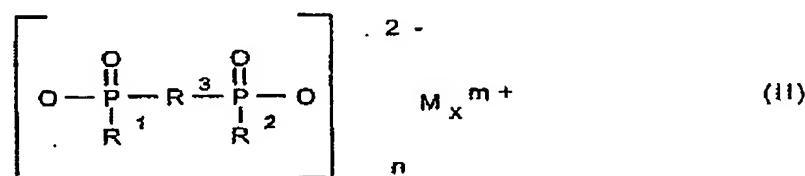
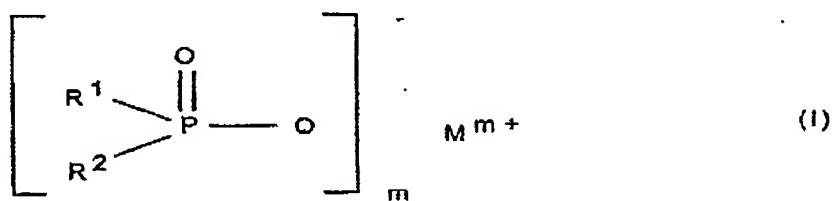
3. (Cancelled)

Attorney's Docket: 2002DE134  
Serial No.: 10/669,973  
Group: 1714

4. (Previously Presented) A flame-retardant thermoset composition as claimed in claim 1, wherein R<sup>3</sup> is methylene, ethylene, n-propylene, isopropylene, n-butylene, tert-butylene, n-pentylene, n-octylene or n-dodecylene.
5. (Previously Presented) A flame-retardant thermoset composition as claimed in claim 1, wherein R<sup>3</sup> is phenylene or naphthylene.
6. (Previously Presented) A flame-retardant thermoset composition as claimed in claim 1, wherein R<sup>3</sup> is methylphenylene, ethylphenylene, tert-butylphenylene, methylnaphthylene, ethylnaphthylene or tert-butynaphthylene.
7. (Previously Presented) A flame-retardant thermoset composition as claimed in claim 1, wherein R<sup>3</sup> is phenylmethylene, phenylethylene, phenylpropylene or phenylbutylene.
8. (Cancelled)
9. (Currently Amended) A flame-retardant thermoset composition as claimed in claim 1, comprising from 1 to 15 parts by weight of the flame retardant, from 1 to 20 parts by weight of the at least one first synergistic component, ~~wherein the at least one first synergistic component is an organic phosphorus compound~~, and from 1 to 20 parts by weight of the nitrogen compound, per 100 parts by weight of the thermoset composition.
10. through 14. (Cancelled)

Attorney's Docket: 2002DE134  
 Serial No.: 10/669,973  
 Group: 1714

15. (Currently Amended) A flame-retardant thermoset composition comprising a flame retardant selected from the group consisting of a phosphinic salt of the formula (I), a diphosphinic salt of the formula (II), a polymer of the phosphinic salt of the formula (I), a polymer of the diphosphinic salt of the formula (II) and mixtures thereof.



where

R<sup>1</sup>, R<sup>2</sup> are identical or different and are C<sub>1</sub>-C<sub>6</sub>-alkyl, linear or branched, or aryl;

R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub>-alkylene, linear or branched, C<sub>6</sub>-C<sub>10</sub>-arylene, -alkylarylene or -arylalkylene;

M is Mg, Ca, Al, Sb, Sn, Ge, Ti, Zn, Fe, Zr, Ce, Bi, Sr, Mn, Li, Na, K or a protonated nitrogen base;

m is from 1 to 4;

n is from 1 to 4; and

x is from 1 to 4.

Attorney's Docket: 2002DE134  
Serial No.: 10/669,973  
Group: 1714

and at least one first synergistic component selected from the group consisting of organic and inorganic phosphorus compounds, and at least one second synergistic component, wherein the at least one second synergistic component is a nitrogen compound~~A flame retardant thermoset composition as claimed in claim 1, and further comprising at least one carbodiimide.~~

16. (Currently Amended) A flame-retardant thermoset composition article as claimed in claim 1, wherein the comprising a thermoset composition as claimed in claim 1, and wherein the thermoset article is selected from the group consisting of a molding composition, a coating and a laminate made from thermoset resins.

17. (Currently Amended) A flame-retardant thermoset composition as claimed in claim 16, wherein the at least one thermoset resin is an unsaturated polyester resin or epoxy resin.

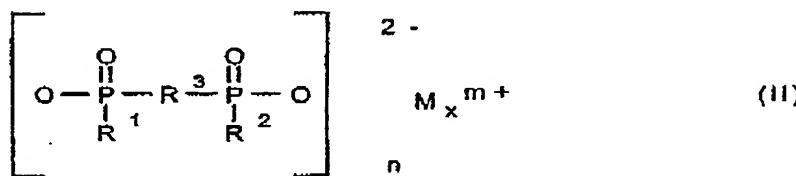
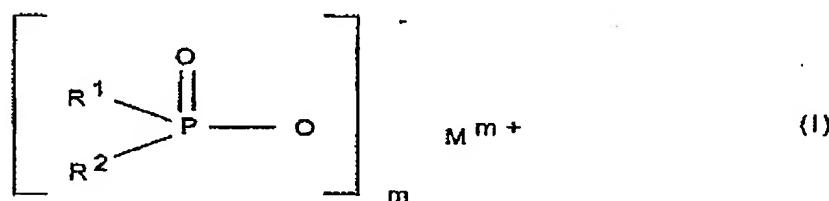
18. (Previously Presented) A process for preparing flame-retardant thermoset compositions as claimed in claim 1, comprising the steps of mixing a thermoset resin with the flame retardant, the at least one first synergistic component and the at least one second synergistic component to form a mixture, and wet-pressing the mixture at a pressure of from 3 to 10 bar and at a temperature of from 20 to 60°C.

19. (Previously Presented) A process for preparing flame-retardant thermoset compositions as claimed in claim 1, comprising the steps of mixing a thermoset resin with the flame retardant, the at least one first synergistic component, and the at least one second synergistic component to form a mixture, and wet-pressing the mixture at a pressure of from 3 to 10 bar and at a temperature of from 80 to 150°C.

Attorney's Docket: 2002DE134  
Serial No.: 10/669,973  
Group: 1714

20. (Previously Presented) A process for preparing flame-retardant thermoset compositions as claimed in claim 1, comprising the steps of mixing a thermoset resin with the flame retardant, at least one first synergistic component, and at least one second synergistic component to form a mixture, and processing the mixture at a pressure of from 50 to 150 bar and at a temperature of from 140 to 160°C to give prepregs.
21. (Currently Amended) A flame-retardant thermoset composition as claimed in claim 11\_1, wherein the melamine salt is melamine phosphate.
22. (Currently Amended) A flame retardant thermoset composition as claimed in claim 11\_1, wherein the guanidine compound is selected from the group consisting of guanidine carbonate, guanidine phosphate and guanidine sulfate.
23. (Previously Presented) The process as claimed in claim 18, wherein the wet pressing step further comprises cold pressing.
24. (Previously Presented) The process as claimed in claim 19, wherein the wet pressing step further comprises warm or hot pressing.
25. (New) A flame-retardant thermoset composition comprising at least one thermosetting resin, a flame retardant 0.1 to 30 parts by weight of the thermoset composition, wherein the flame retardant is selected from the group consisting of a phosphinic salt of the formula (I), a diphosphinic salt of the formula (II), a polymer of the phosphinic salt of the formula (I), a polymer of the diphosphinic salt of the formula (II) and mixtures thereof,

Attorney's Docket: 2002DE134  
 Serial No.: 10/669,973  
 Group: 1714



where

$\text{R}^1, \text{R}^2$  are identical or different and are methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, n-pentyl, phenyl or mixtures thereof;

$\text{R}^3$  is  $\text{C}_1\text{-C}_{10}$ -alkylene, linear or branched,  $\text{C}_6\text{-C}_{10}$ -arylene, -alkylarylene or -arylalkylene;

$\text{M}$  is Mg, Ca, Al, Sb, Sn, Ge, Ti, Zn, Fe, Zr, Ce, Bi, Sr, Mn, Li, Na, K or a protonated nitrogen base;

$\text{m}$  is from 1 to 4;

$\text{n}$  is from 1 to 4; and

$\text{x}$  is from 1 to 4,

at least one first synergistic component in an amount of from 0.1 to 100 parts by weight of the thermosetting composition, wherein the first synergistic component is an inorganic phosphorus compound selected from the group consisting of red phosphorus, ammonium phosphate and melamine polyphosphate, and at least one second synergistic component, wherein the at least one second synergistic

Attorney's Docket: 2002DE134  
Serial No.: 10/669,973  
Group: 1714

component is a nitrogen compound selected from the group consisting of the melamine, melamine derivatives of cyanuric acid, melamine derivatives of isocyanuric acid, melamine salts, melamine polyphosphate or melamine diphosphate, dicyandiamide, a guanidine compound, and condensation products of ethyleneurea and formaldehyde, or ammonium polyphosphate.

26. (New) The flame retardant thermoset composition as claimed in claim 25, wherein the melamine salt is melamine phosphate.

27. (New) The flame retardant thermoset composition as claimed in claim 25, wherein the guanidine compound, is guanidine carbonate, guanidine phosphate or guanidine sulfate.

28. (New) A flame-retardant thermoset composition as claimed in claim 25, wherein R<sup>3</sup> is methylene, ethylene, n-propylene, isopropylene, n-butylene, tert-butylene, n-pentylene, n-octylene or n-dodecylene.

29. (New) A flame-retardant thermoset composition as claimed in claim 25, wherein R<sup>3</sup> is phenylene or naphthylene.

30. (New) A flame-retardant thermoset composition as claimed in claim 25, wherein R<sup>3</sup> is methylphenylene, ethylphenylene, tert-butylphenylene, methylnaphthylene, ethynaphthylene or tert-butynaphthylene.

31. (New) A flame-retardant thermoset composition as claimed in claim 25, wherein R<sup>3</sup> is phenylmethylene, phenylethylene, phenylpropylene or phenylbutylene.

Attorney's Docket: 2002DE134  
Serial No.: 10/669,973  
Group: 1714

32. (New) A flame-retardant thermoset composition as claimed in claim 25, comprising from 1 to 15 parts by weight of the flame retardant, from 1 to 20 parts by weight of the at least one first synergistic component, and from 1 to 20 parts by weight of the nitrogen compound, per 100 parts by weight of the thermoset composition.
33. (New) A flame-retardant thermoset article, comprising a thermoset composition as claimed in claim 25, and wherein the thermoset article is selected from the group consisting of a molding composition, a coating and a laminate made from thermoset resins.
34. (New) A flame-retardant thermoset composition as claimed in claim 33, wherein the at least one thermoset resin is an unsaturated polyester resin or epoxy resin .
35. (New) A process for preparing flame-retardant thermoset compositions as claimed in claim 25, comprising the steps of mixing a thermoset resin with the flame retardant, the at least one first synergistic component and the at least one second synergistic component to form a mixture, and wet-pressing the mixture at a pressure of from 3 to 10 bar and at a temperature of from 20 to 60°C.
36. (New) A process for preparing flame-retardant thermoset compositions as claimed in claim 25, comprising the steps of mixing a thermoset resin with the flame retardant, the at least one first synergistic component, and the at least one second synergistic component to form a mixture, and wet-pressing the mixture at a pressure of from 3 to 10 bar and at a temperature of from 80 to 150°C.

Attorney's Docket: 2002DE134  
Serial No.: 10/669,973  
Group: 1714

37. (New) A process for preparing flame-retardant thermoset compositions as claimed in claim 25, comprising the steps of mixing a thermoset resin with the flame retardant, at least one first synergistic component, and at least one second synergistic component to form a mixture, and processing the mixture at a pressure of from 50 to 150 bar and at a temperature of from 140 to 160°C to give prepgs.

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

**BLACK BORDERS**

**IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

**FADED TEXT OR DRAWING**

**BLURRED OR ILLEGIBLE TEXT OR DRAWING**

**SKEWED/SLANTED IMAGES**

**COLOR OR BLACK AND WHITE PHOTOGRAPHS**

**GRAY SCALE DOCUMENTS**

**LINES OR MARKS ON ORIGINAL DOCUMENT**

**REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

**OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**